

**REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

**Status of Claims:**

No claims are currently being cancelled.

Claims 1, 2, 10, 19 and 20 are currently being amended.

Claims 25 and 26 are currently being added.

This amendment and reply adds and amends claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After adding and amending the claims as set forth above, claims 1, 2 and 4-26 are pending in this application, in which claims 4-6, 10-18 and 21-23 are withdrawn from consideration as being directed to non-elected species.

**Drawing Objections:**

In the final Office Action, the drawings were objected to under 37 C.F.R. § 1.83(a), as failing to show every feature of the invention specified by the claims. In particular, the final Office Action asserts that the features “a variation rate estimating section” and “a vehicular traveling modifying section” of claim 1 are not shown in the drawings.

In reply, claim 1 has been amended so that clear support can be found for those features in the specification and the drawings. See, for example, Figures 6, 10 and 11 of the drawings, and paragraphs 0039 and 0040 of the specification.

In particular, a vehicular travel controlling section that estimates an optical axis deviation quantity of the detection range of the vehicular forward substance detecting section when the impulse detecting section detects that the impulse has been applied to the forward substance detecting section corresponds to each of steps S2, S201 in Fig. 6, steps S2, S221 in Fig. 9, steps S2, S231 in Fig. 10, and steps S10, S241 in Fig. 11. See also Figure 7 of the drawings, which shows a map used to estimate the optical axis deviation quantity.

The running control varying section corresponds to steps S207 to S209 in Fig. 6, as stated in the last sentence in paragraph 0040 of the specification.

Accordingly, the last two paragraphs of claim 1 are shown in the drawings and are fully supported by the specification.

**Specification Objection:**

In the final Office Action, the (non-entered) amendment filed on September 19, 2009 was objected to, because it allegedly introduced new matter into the disclosure. Specifically, the final Office Action asserts that the phrase “a variation rate estimating section” and the phrase “a vehicular traveling modifying section” of claim 1 are not shown in the original disclosure.

In reply, the last two paragraphs of claim 1 have been amended to conform to the wording used in the specification; see especially paragraphs 0039 and 0040 of the specification (e.g., see page 13, line 30 to page 14, line 4 of the specification).

Accordingly, no new matter has been introduced into claim 1 (and no new matter has been introduced into claims 19 and 20 that have been amended in a similar manner).

**Claim Rejections – 35 U.S.C. § 112, 1<sup>st</sup> and 2<sup>nd</sup> Paragraphs:**

In the final Office Action, claim 1 was rejected under 35 U.S.C. § 112, 1<sup>st</sup> paragraph, and claims 1 and 19 were rejected under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph, for the reasons set forth on pages 3 and 4 of the final Office Action. In reply, and as discussed above with respect to the objections to the drawings and the specification, there is clear written description support in the specification for the last two paragraphs of claim 1, as amended, as discussed above with respect to the objection to the drawings and the specification.

Accordingly, claims 1 and 19 fully conform with 35 U.S.C. § 112, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs.

**Claim Rejections – Prior Art:**

In the final Office Action, claims 1, 2, 7, 9, 19 and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese laid open patent application JP 11142520 to Arita et al. (in view of English translation); claim 8 was rejected under 35 U.S.C. § 103(a) as being

unpatentable over Arita et al. in view of U.S. Patent Publication No. 2003/0201878 to Bai et al. and further in view of U.S. Patent Publication No. 2002/0091479 to Maruko et al. and U.S. Patent Publication No. 2001/0016798 to Kodaka et al.; and claim 24 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Arita et al. in view of Bai et al. These rejections are traversed with for the reasons given below.

The final Office Action asserts that the claimed impulse detecting section that detects such an impulse that a detection range of a vehicular forward substance detecting section is varied has been applied to a vehicular forward substance detecting section is disclosed in paragraphs 0009, 0010, 0028, 0035, 0039, 0045, 0065-0067, and Figure 2 of Arita et al. Applicant has reviewed paragraphs of 0009, 0010, 0028, 0035, 0039, 0045, 0065 to 0067, and Figure 2 of Arita et al., and cannot find any disclosure in those portions of Arita et al. that disclose, teach or suggest the claimed impulse detecting section. Rather, these portions of Arita et al. describe an optical axis adjustment, and they do not disclose, teach or suggest an impulse detecting section as recited in claim 1.

In more detail, Arita et al. describes a method of adjusting the center of a detection area detected by a range finder at an appropriate position for adjusting the axis of the range finder incorporated into a vehicle in which waves are irradiated on a predetermined detection area in front of the vehicle in a scanning manner. Arita et al. also describes that detection data including at least positional information on the object to be detected which is located in the detection area is judged and outputted according to the waves reflected on the object to be detected, in which the method includes: obtaining plural pieces of detection data of the preceding vehicle by the range finder, when the vehicle is running straight on the straight line following the preceding vehicle; processing the plural pieces of detection data of the preceding vehicle statically; judging the appropriate position as the average center of the preceding vehicle; and changing the parameter of the detection area of the range finder so that the center of the detection area coincides with the appropriate position.

Note that paragraphs 0009 and 0010 of Arita et al. describe that an imperfect alignment of a detection area may occur due to a light impact of the vehicle, but this only explains how the detection area change may occur, and it certainly does not disclose, teach or suggest that once an impact is detected, a vehicular travel controlling section and a running

control varying section perform specific processes as recited in claim 1. Rather, in Arita et al., a correction of a detection area of a vehicle takes place at a predetermined time, such as when the vehicle is being serviced at a dealership, and not when an impulse is detected that causes a variation in a detection range.

No disclosure of the claimed impulse detecting section exists in the above-cited portions of Arita et al. listed in the final Office Action. As such, independent claims 1, 19 and 20 patentably distinguish over Arita et al., and in which neither Bai et al. nor Kodaka et al. rectifies these deficiencies of Arita et al.

Still further, with respect to dependent claim 2, that claim now recites that the vehicular travel controlling section estimates the optical axis deviation quantity based on an amount of the impulse detected by the impulse detecting section and based on a map of impulse amount versus optical axis deviation quantity. See, for example, page 14, lines 1-5 of the specification, in which such features are not taught or suggested by the cited art of record.

Accordingly, dependent claim 2, as well as new claims 25 and 26 which recite similar features, patentably distinguish over the cited art of record for these additional reasons.

Also, dependent claim 9 has been amended to recite features of the use of the optical axis deviation quantity by the running control varying section, which are not taught or suggested by the cited art of record.

Accordingly, dependent claim 9 patentably distinguishes over the cited art of record for these additional reasons.

**Conclusion:**

Since all of the issues raised in the final Office Action and the Advisory Action have been addressed in this Amendment and Reply, Applicant believes that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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